### ATTACHMENT A. FY2022 IRAP APPLICATION COVER SHEET

(Please type in text boxes provided below)

1. Name of Applicant: Grafton and Upton Railroad Company

2. Address of Applicant: 42 Westboro Road, North Grafton, MA 01536

3. Nature of Applicants Business: Railroad - Transloading Terminal Rail-Truck-Rail

4. Contact Person: Michael Milanoski

5. Title: President

Email: mmilanoski@graftonuptonrr.com Phone: (508)965-3493

6. Descriptive Name of Project:

Expansion of railroad yard infrastructure to accommodate new growth following of \$24,000,000 expansion of liquid transloading facility for growing demand of 25+ manufacturing business opening this summer with 500 new railcars

7. Total project cost: \$ 24,835,000 Proposed Start Date: underway, rail sept 21

Completion Date: June 30, 2022

8. Funding Sources: Private Amount: \$24.835M Percent of Project 97.6

Cost: \$24,335,000

IRAP Request: \$ \$500,000 % 2.4%

Source of Private Sector Project Funding:

1. Company \$ 24,335,000 % 97.6

2. \$

3. \$

9. Project location (limits):

Grafton and Upton Enironbulk Terminal, 25 Maple Ave. West Upton, MA 01568 and all within the fenced in railyard.

11. Railroad Milepost From: 7.6 To: 7,8
12. Is Project fully designed by a qualified design firm? Yes: X No:
13. Has Project received necessary environmental approvals? Yes: X
14. Are there any right-of-way considerations that will need to be addressed/resolved for this project to be constructed? Yes: X
15. In the space provided below provide a brief project description (limit of 250 words) of the work that will be constructed under the proposed IRAP project.
3 tracks as proposed in this IRAP Phase I in the upper yard are for new business. Due to the new use of these existing tracks, plus the addition of new business at our Upton facility, GU will need at add 2 tracks Phase II, in the lower yard to receive the railcars.  Materials to be installed 2,120 LF of relay rail ties and other rail material (OTM) 5 rail switches installed 3 rail bumpers installed Grading and Ballast

The applicant certifies that the information provided in this application is true and correct, and that the private sector matching funding commitments shown above are in place and are not contingent upon any other project funding award that may be anticipated or pending.

Signature: Title: Presidnet

Name: Michael R. Milanoski Date: June 16, 2021

(Please Type)

#### ATTACHMENT B.

### **Proposed Project Schedule and Estimated Timelines**

IRAP Projects should be completed within 12 months from the MassDOT Notice to Proceed Date. MassDOT Notice to Proceed should not be planned any earlier than September 1, 2021.

Upton Task's Phase 1	September	October	November	December	January	February	March	April	May	June
Finalize Design Details										
Procure Materials										
Site Prep and Grading										
Track /Turnout Construction			- 2							
Surfacing/Tamping									= 0 11	

Instructions: complete the project schedule table to reflect the status of your project and the remaining implementation tasks and work that will be completed under contract with MassDOT. Insert additional rows as needed.

If the applicant has already completed pre-construction activities that cannot be funded under the IRAP contract — any completed readiness activities such as design, permitting and ROW work should be included along with the completion date to show MassDOT that project implementation work has already begun, or is already completed — this information is important from a project readiness standpoint and is also evidence of the applicant's capacity to undertake and manage the project. The schedule should indicate an understanding of the sequencing of activities and who will be responsible for completion of various tasks and construction activities.

# ATTACHMENT C. Budget and Budget Narrative

ESTIMATE WEST UPTON TRANSLOADING AND STAGE	IG TRACKS P	ASE 1 IRAP FY	22
Identified Project Costs/Major Expense Companents	IRAP Funds	Private Funds	Project Budget
ALL MATERIAL FOR THE ENTIRE SCOPE OF WORK	\$325,535	\$217,023	\$542,558
FINE GRADE AND PLACE FIRST 4" OF BALLAST	\$18,563	\$12,375	\$30,938
CONSTRUCT WOOD TIE PLAIN TRACK 1544 TRACK FEET	\$39,112	\$26,074	\$65,186
CONSTRUCT TURNOUTS	\$67,428	\$44,952	\$112,379
BALLAST AND SURFACE ALL TRACKS AND TURNOUTS 2 FULL PASSES	\$36,953	\$24,635	\$61,588
INSTALL HAYES WD BUMPER 1 EA AND 1 HAYES HBX	\$2,563	\$1,709	\$4,272
DESIGN / ENGINEERING / MOBILIZATION	\$11,400	\$7,600	\$19,000
Total Project Cost Estimate (Inclusive of Material and Labor):	\$501,553	\$334,368	\$835,921

#### **Budget Narrative Notes:**

he Public Private Partnership Project Budget is \$835,000 of which 40% will be funded by GU in amount of \$335,000. The IRAP match requested amount is 60% or \$500,000. GU has a proven track record to compete IRAP project on-time and budget and commits to competing this by June 30, 2022 and is ready to begin upon notice to proceed. The project's right of way is complete, design is complete (attached), all required permits completed, railroad is sponsoring this project and paying match, no third party coordination required, and this site is properly zoned by the town of Upton as Industrial Land and has been used as rail yard for over 130 years. See appendix for full budget details.

Instructions: Complete the Budget table provided above inserting additional rows as needed. Applicants are reminded that the maximum FY2022 MassDOT IRAP grant contribution for a proposed project cannot exceed \$500,000, nor can the MassDOT IRAP funding requested represent more than 60 percent (60%) of the total project cost.

If the project is anticipated to be completed after the end of State Fiscal Year 2022 (June 30, 2022) provide an estimated breakdown of costs planned in State Fiscal Year 2022 and those in future State Fiscal Years.

Use the space below the table to include a brief budget narrative to identify how budgeted costs were determined (working estimates, preliminary quotes received or based on prior experience) and indicate underlying budget assumptions and the basis for identified costs (unit price x quantity for example) wherever possible.

The Grafton and Upton Railroad (GU) is completing a 24-million-dollar rail served liquid bulk transloading building in their Upton Envirobulk Facility to serve the Massachusetts manufacturing economy. This transloading building will allow customers of the GU to safely transload hazardous materials, like those used by medical and pharmaceutical manufacturing, inside a well lit, well ventilated, safety focused state of the art transloading building. Built along two existing tracks, GU's new facility will allow their customers access to stainless steel tanks designed for the safe transloading of these materials with many redundancies for safer transloading. From the tanks, customers can load trucks and/or drum/tote the materials inside the building removing the risk the spillage.

Brenntag Northeast is a critical supplier of chemicals in the northeast and will be the largest volume user of the site. From medical equipment and supplies to plane deicer to household cleaning agents as well as many other critical liquid chemicals necessary for the manufacturing industry. Brenntag elected to locate their facility in the new transloading building to better serve their Massachusetts market. GU's customer service excellence, ability to serve their growing market and location to interstates made this facility appealing to Brenntag for these multiple reasons.

The transloading building is located along the currently used tracks A&B, that are now used by Clean Harbors and some of the other 25 plus customers of the GU's Upton Rail yard and transloading facility. These tracks will now be used by Brenntag Northeast to supply their newly constructed 25,000 square foot drumming facility that is opening this summer. Once fully operational, Brenntag will increase their railcars by 100% from fifty (50) in 2020 to one hundred (100) in 2021 with additional growth planned for 2022 much beyond the hundred (100) railcar mark. Further, with the addition of this increased rail traffic, this facility will add eight (8) employees.

3 tracks as proposed in this IRAP Phase I in the upper yard are for new business. This new business is new for 2021 and includes, Lhoist at 24 cars per year, CertainTeed at 100 cars per year and R.W. Sidley at 12-20 cars per year with the potential for significant growth in 2022. Due to the new use of these existing tracks, plus the addition of new business at our Upton facility, GU will need at add 2 tracks Phase II, in the lower yard to receive the railcars from Clean Harbors who removes contaminated waste from the Commonwealth by rail instead of over the road trucks and other customers that are being displaced by the Brenntag project

Furthermore, ExxonMobil has picked additional business with the addition four (4) new wax-based customers. This will require additional storage capacity in Upton as this new business results in a 20% increase in business for ExxonMobil. These cars will be stored in the upper yard which requires the addition of three (3) new tracks.

In addition to ExxonMobil's increase in business, GU is expecting the pellet business to expand dramatically with addition of new clients and increased crude oil pricing which is increasing home heating oil. Therefore, the additional three (3) tracks in the upper yard will also hold pellet cars to meet the bagging demand in the heating season and surplus pellet railcar staging for both the pellet facility and ExxonMobil. It is expected that the increase in pellet railcars will be about forty (40) railcars for the 2021/2022 heating season.

In summary, the five tracks (Phase I and II) will support increased business from 3 existing GU customers, ExxonMobil, Brenntag and the pellet bagging facility, plus the additional traffic generated from 3 new customers, Lhoist, CertainTeed and R.W. Sidley in addition to the 20 other customers currently served

from the site. These new customers plus the increase from the existing customers proves GU's ability to convert truck traffic to rail traffic and perform high level customer service. GU is expecting an increase of nearly 500 railcars from the Upton Facility in 2021/22 and will require the addition of these 5 tracks to handle the new business that will take approximately 2,000 long-haul tractor trailers off the road while providing a safer method of transportation. In addition, the new business will directly create eight (8) to sixteen (16) more jobs for the Commonwealth of Massachusetts and indirectly support the addition other manufacturing jobs.

#### A. Project Need Statement -

The Grafton and Upton Railroad Company (GU) is experiencing year over year double digit freight growth with the addition of new customers that are creating manufacturing and recycling jobs in the Commonwealth. The Upton Railyard has numerous constraints that are prohibiting the timely growth needed to accommodate the railroad customers that are trying to expand services in Massachusetts. Due to this demand, GU has invested to accommodate growth support their existing and new customers with a \$24,000,000 expansion at this facility. However, to ensure new customers were able to continue to expand their freight service on the GU, and the Commonwealth of Massachusetts this IRAP is submitted for Phase I for the Upton Envirobulk Transloading Facility. As GU continues to invest into their properties, it is evident that GU's efforts to bring more jobs to the Commonwealth proves more track and freight rail infrastructure is needed to support these manufacturing jobs and to keep up with the anticipated 34% freight rail growth as stated in the latest state rail transportation plan.

#### B. Project Description -

The Upton Transloading Railyard Expansion Project is designed to allow the GU's customers to have immediate access to their freight by creating multiple transloading areas by adding additional tracks.. Not only will this project have positive economic impacts by creating manufacturing jobs, it'll provide for safer and more consistent rail service. Furthermore, this project will help the customers and the GU hire additional employees such as Brenntag, who will hire eight (8) to sixteen (16) employees. This is due to the \$24,000,000-investment made by GU to create a transloading building to ensure the customers have a safe place to properly transload various commodities used in manufacturing and to ensure they have room for growth. The project consists of constructing two (2) transloading track that can be accessed by both sides for loading and unloading, cleaning and prepositioning of railcars. Further, the investment made by GU will use two (2) existing tracks, displacing the customers already using these tracks, which is evidence of the direct and immediate need to add the tracks described in the application. The project is based on three principles of mutual success for both the Commonwealth of Massachusetts and GU including safety, long haul truck reduction on the Commonwealth's overburdened interstates, and manufacturing Job creatlon in Massachusetts.

Safety improvement are easily found with the addition of each track which gives each customer a safe place to operate without interference or risk of running into another company's work area. Further, the staging capabilities on each track for the prepositioning of railcars to be loaded/unloaded will allow the customers of the GU to have an adequate car supply available to keep material moving so it does not have to be stored on site and they can operate a proper supply chain. Safety improvements are also found in the transloading process by designing a rail yard and transloading facility that can accommodate all the customers and align with efficient business operations and process maps that make safe operations more possible within the transloading. This gives each customer enough track space to preposition the required number of cars to meet their customer's needs and project deadlines.

#### C. Project Readiness -

GU has a proven track record to compete IRAP project on-time and budget and commits to competing this by June 30, 2022 and is ready to begin upon notice to proceed. The project's right of way is complete, design is complete (attached), all required permits completed, railroad is sponsoring this project and paying match, no third party coordination required, and this site is properly zoned by the town of Upton as Industrial Land and has been used as rail yard for over 130 years.

#### D. Project Schedule

The project will be self-performed by GU railroad employees under our forced account as other awards from MassDOT and will begin as soon as award is made by MassDOT. Materials are standard stock materials that are readily available. Upon award construction will begin and will be completed no later than June 30, 2022.

Upton Task's Phase 1	September	October	November	December	January	February	March	April	May	June
Finalize Design Details										
Procure Materials										
Site Prep and Grading										
Track /Turnout Construction					200					
Surfacing/Tamping										

#### E. Anticipated Project Benefits

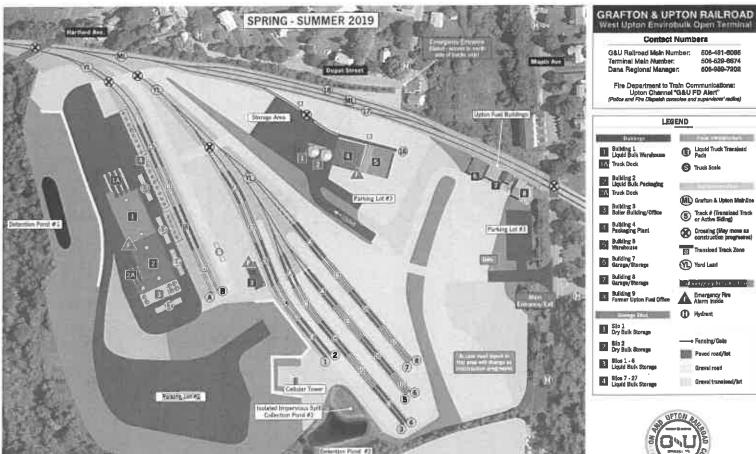
GU, in partnership with several customers located in Upton that are committed to bringing and retaining manufacturing jobs within the Commonwealth. This IRAP will help the GU and their customers continue their success within the Commonwealth and add over ten (10) jobs at this location and many more indirectly throughout the Commonwealth. The GU has a proven track record with successful implementation of IRAP awards and adding job growth to the Commonwealth. GU is committed to creating jobs in the Commonwealth, achieving state environmental and emissions reductions goals and maintaining a strong safety culture.

#### F. Budget

The Public Private Partnership Project Budget is \$835,000 of which 40% will be funded by GU in amount of \$335,000. The IRAP match requested amount is 60% or \$500,000.

ESTIMATE WEST UPTON TRANSLOADING AND STAGING TRACKS PHASE 1 IRAP FY22										
Identified Project Costs/Major Expense Components	IRAP Funds	Private Funds	Project Budget							
ALL MATERIAL FOR THE ENTIRE SCOPE OF WORK	\$325,535	\$217,023	\$542,558							
FINE GRADE AND PLACE FIRST 4" OF BALLAST	\$18,563	\$12,375	\$30,938							
CONSTRUCT WOOD TIE PLAIN TRACK 1544 TRACK FEET	\$39,112	\$26,074	\$65,186							
CONSTRUCT TURNOUTS	\$67,428	\$44,952	\$112,379							
BALLAST AND SURFACE ALL TRACKS AND TURNOUTS 2 FULL PASSES	\$36,953	\$24,635	\$61,588							
INSTALL HAYES WD BUMPER 1 EA AND 1 HAYES HBX	\$2,563	\$1,709	\$4,272							
DESIGN / ENGINEERING / MOBILIZATION	\$11,400	\$7,600	\$19,000							
Total Project Cost Estimate (Inclusive of Material and Labor):	\$501,553	\$334,368	\$835,921							

Detailed budget estimate included in Appendix.

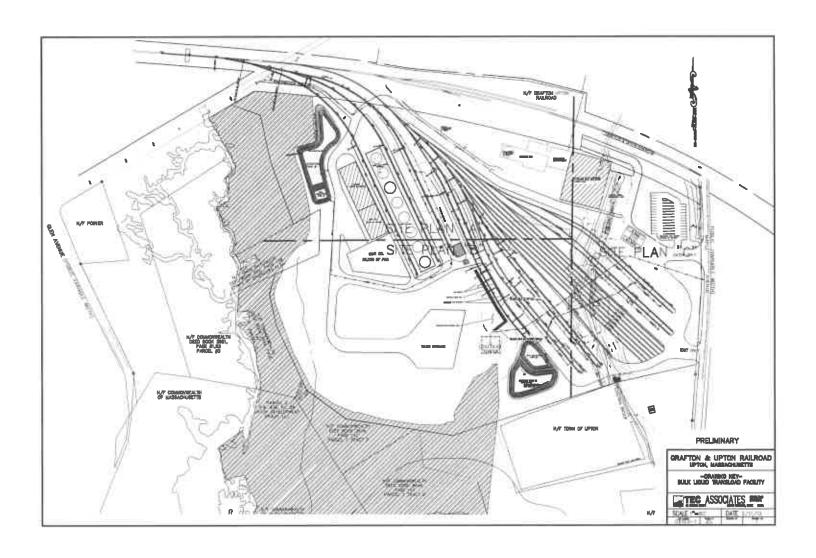


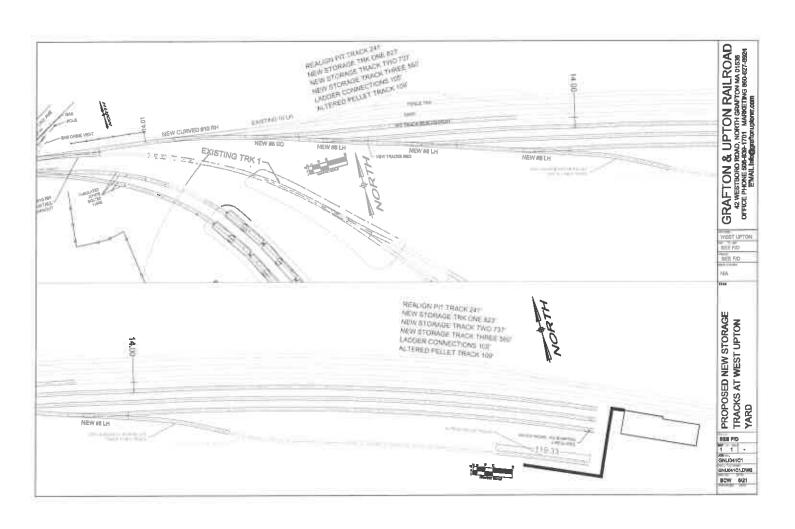
508-481-6095 508-529-8674 508-989-7202

- (ME) Grafton & Upton Mainline
- Track # (Transload Track or Active Siding)

#### almerge cyline at a the







<b>ESTIMATE WEST UPTON TRANSLOADING AND ST</b>	AGII	NG TRAC	CKS F	HASE 1	IRAI	FY22				
ALL MATERIAL FOR THE ENTIRE SCOPE OF WORK									П	
DESCRIPTION	CC	ST/HR	QTY		A HR	M/U	EX	CTENDED		
TRACK FEET				2120						
TIE 7" INDUSTRIAL GRADE NEW	\$	69.00		1272 EA		1 1.10	\$	96,544.80		
TIE PLATE, DOUBLE SHOULDER 5.5" EXCELLENT RELAY	\$	10.50		2544 EA		1 1.10	\$	29,383.20		
SPIKES 5/8" CUT 100LB KEGS	\$	89.00		84 KEC	3	1 1.10	\$	8,184.44		
115RE RAIL, EXCELENT RELAY or similar (40)	\$	797.00		259 TO	V	1 1.10	\$	226,889.96		
JOINT BARS 115RE TOELESS RELAY 4 OR 6 HOLE	\$	88.00		164 EA		1 1.10	\$	15,875.20		
COMPROMISE JOINT BAR 115RE X 112RE	\$	478.00		2 PR		1 1.10	\$	1,051.60		
TRK BOLT, 1 X 6 NEW W/NUT & LK WSHR	\$	2.60		996 SET		1 1.10	\$	2,848.56		
RAIL ANCHOR DRIVE ON 5.5" BASE	\$	2.05		1800 EA		1 1.10	\$	4,059.00		
SWITCH TIMBER KIT #8 TURNOUT	\$	8,500.00		4 EA		1 1.10	\$	37,400.00		
TURNOUT KIT COMPLETE, 115RE #8 SAMPSON PT EX RELAY	\$ :	14,500.00		4 SET		1 1.10	\$	63,800.00		
SWITCH TIMBER KIT #15 (YES #5 CUZ IT'S CURVEDO	\$	9,200.00		1 SET	•	1 1.10	\$	10,120.00		
TURNOUT KIT COMPLETE, 115RE #10 SAMPSON PT EX RELAY	\$	15,500.00		1 SET	•	1 1.10	\$	17,050.00		
SWTICH OPERATING STAND, CENTURY 51A	\$	950.00		5 ASS	Y	1 1.10	\$	5,225.00		
HAYES TYPE WD BUMPER	\$	1,200.00		3 ASS	Y	1 1.10	\$	3,960.00		
HAYES HBX DERAIL	\$	980.00		3 ASS	Y	1 1.10	\$	3,234.00		
GRAVEL, PROCESSED	\$	18.50		100 TO	N	1 1.10	\$	2,035.00		
BALLAST AREMA 4-4A	\$	19.50		550 TO	N	1 1.10	\$	11,797.50		
FREIGHT							\$	3,100.00		
									\$	542,558.26
FINE GRADE AND PLACE FIRST 4" OF BALLAST										
DESCRIPTION	CC	ST/HR	QTY	U/I	M HR	M/U	E)	CTENDED		
CONSTRUCTION SUPERVISOR EIC	\$	50.00		1 EA	2	0 1.00	\$	1,000.00		
FOREMAN	\$	67.00		1 EA	4	0 1.35	\$	3,618.00		
OPERATOR	\$	49.00		3 EA	4	0 1.35	\$	7,938.00		
LABORER	\$	46.00		2 EA	4	0 1.35	\$	4,968.00		
CREW/TOOL TRUCK	\$	63.33		1 EA	4	0 1.25	\$	3,166.50		
EXCAVATOR	\$	89.80		1 EA	2	0 1.25	\$	2,245.00		
BULLDOZER	\$	28.00		1 EA	2	0 1.25	\$	700.00		
ROLLER, 20 TON	\$	66.00		1 EA	2	0 1.25	\$	1,650.00		
TRACTOR TRAILER DUMP	\$	64.60		1 EA	7	0 1.25	\$	5,652.50		
									\$	30,938.00
CONSTRUCT WOOD TIE PLAIN TRACK 1544 TRACK FEET										
DESCRIPTION	CC	OST/HR	QTY	U/I	M HR	S M/U	E)	KTENDED		COMMENTS
CONSTRUCTION SUPERVISOR EIC	\$	50.00		1 EA	4	0 1.35	\$	2,700.00		
FOREMAN	\$	67.00		1 EA	8	0 1.35	\$	7,236.00		
OPERATOR	\$	49.00		2 EA	8	0 1.35	\$	10,584.00		
LABORER	\$	46.00		4 EA				19,872.00		
CREW/TOOL TRUCK	\$	63.33		1 EA	8	0 1.25	\$	6,333.00		
GRAPPLE TRUCK	\$	129.00		1 EA	-	0 1.25	\$	6,450.00		
TRACTOR TRAILER DUMP	\$	64.60		1 EA		.0 1.25	-			
PETTIBONE SPEED SWING	\$	65.70		1 EA		0 1.25	-			
SPIKER, NORDCO MODEL CX OR EQUAL	\$	71.56		1 EA		0 1.25	-	-		
AIR COMPRESSOR	\$	19.50		1 EA	8	0 1.25	\$	1,950.00		
									\$	65,186.00
CONSTRUCT TURNOUTS										
DESCRIPTION		OST/HR	QTY	_		_		KTENDED		COMMENTS
CONSTRUCTION SUPERVISOR EIC	\$	50.00		1 EA		5 1.35	-	-		
FOREMAN	\$	67.00		1 EA	15	0 1.35	\$	13,567.50		

OPERATOR	\$	49.00		2 EA	150	1.35	\$	19,845.00	
LABORER	\$	46.00		4 EA	150	1.35	\$	37,260.00	
CREW/TOOL TRUCK	\$	63.33		1 EA	150	1,25	\$	11,874.38	
GRAPPLE TRUCK	\$	129.00		1 EA	75	1.25	\$	12,093.75	
TRACTOR TRAILER DUMP	\$	64.60		1 EA	10	1.25	\$	807.50	
PETTIBONE SPEED SWING	\$	65.70		1 EA	100	1.25	\$	8,212.50	
AIR COMPRESSOR	\$	19.50		1 EA	150	1.25	\$	3,656.25	
BALLAST AND SURFACE ALL TRACKS AND TURNOUTS 2 FULL PASSI	ES								\$ 112,379.38
DESCRIPTION		ST/HR	QTY	U/N	HRS	M/LI	EX	TENDED	COMMENTS
CONSTRUCTION SUPERVISOR EIC	\$	50.00		1 EA		1.35		2,025.00	
FOREMAN	\$	67.00		1 EA		1.35		-	
OPERATOR	\$	49.00		1 EA		1.35		3,969.00	
LABORER	\$	46.00		2 EA		1.35	-		
CREW/TOOL TRUCK	\$	63.33		1 EA		1.25		4,749.75	
EXCAVATOR	\$	89.80		1 EA		1.25		6,735.00	
TRACTOR TRAILER DUMP	\$	64.60		1 EA		1.25		4,845.00	
BALLAST CAR	\$	35.00		1 EA		1.25	-	-	
PETTIBONE SPEED SWING	\$	65.70		1 EA		1.25	-	4,927.50	
TORSION BEAM TAMPER	\$	179.10		1 EA		1.25	-	•	
PRODUCTION REGULATOR	\$	72.00		1 EA		1.25		5,400.00	
									\$ 61,587.75
INSTALL HAYES WD BUMPER 1 EA AND 1 HAYES HBX									
DESCRIPTION	COS		QTY	_				TENDED	COMMENTS
CONSTRUCTION SUPERVISOR EIC	\$	50.00		1 EA		1.35		540.00	
FOREMAN	\$	67.00		1 EA		1.35		723.60	
OPERATOR	\$	49.00		1 EA		1.35		529.20	
LABORER	\$	46.00		2 EA		1.35		993.60	
CREW/TOOL TRUCK	\$	63.33		1 EA		1.25		633.30	
PETTIBONE SPEED SWING	\$	65.70		1 EA	8	1.25	\$	657.00	
AIR COMPRESSOR	\$	19.50		1 EA	8	1.25	\$	195.00	
									\$ 4,271.70
DESIGN / ENGINEERING									\$ 4,500.00
SURVEY STAKE-OUT									\$ 2,500.00
CONTRACTOR MOBILIZATION - DEMOBILIZATION									\$ 12,000.00
							GR	AND TOTAL	\$ 835,921.09

#### Dana Container Inc. 25 Maple Avenue Upton, MA 01568

#### Dear Deputy Rail Administrator Eng,

I am writing to you today in support of the Grafton and Upton Railroad's Industrial Rail Access Program (IRAP) 2022 application for a phase 1 expansion of 3 new tracks. The GU has done a tremendous job in their continuance of supporting long haul truck to rail conversions through investments into their properties. In Upton, a new \$24,000,000 transloading building was built to continue these efforts. This 25,000 square foot building reinforces GU's commitment to safety and to their customers by supporting customer growth and manufacturing within the Commonwealth of Massachusetts.

With this investment in growth comes the need to add more rail in Upton to support the business. Fortunately, there are two complete tracks adjacent to this building, but they are currently being used by other customers of the GU. Therefore, GU needs to immediately replicate these tracks in Upton by building new tracks in two phases. Phase I adds three tracks to fulfill the displacement of the current customers and increases capacity to not only support the growth of the transloading building, but to support the growth of three (3) new customers that GU has engaged within the past 6 months. These three new customers represent an additional 120 plus cars per year and the transloading building and adds an additional 100 plus cars for 2020 and another 100 cars per year over the next two – three years. This represents more jobs in the Commonwealth, reduction of long haul trucks and increased capacity to maintain pace with Commonwealths Rail Plan's growth of 34%.

In Upton, we intend to add eight (8) to sixteen (16) new jobs, which indirectly supports the addition of other manufacturing job. Therefore, to maintain our current customers and add new customers to the transloading building, it is imperative to build more track as soon as possible to continue to support the growth in Upton. This project is shovel ready and construction can commence as soon as the grant is awarded.

Respectfully,

Michael I Polselli

New England Regional Manager

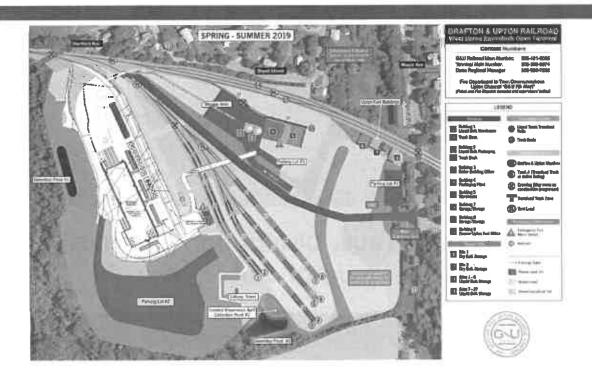


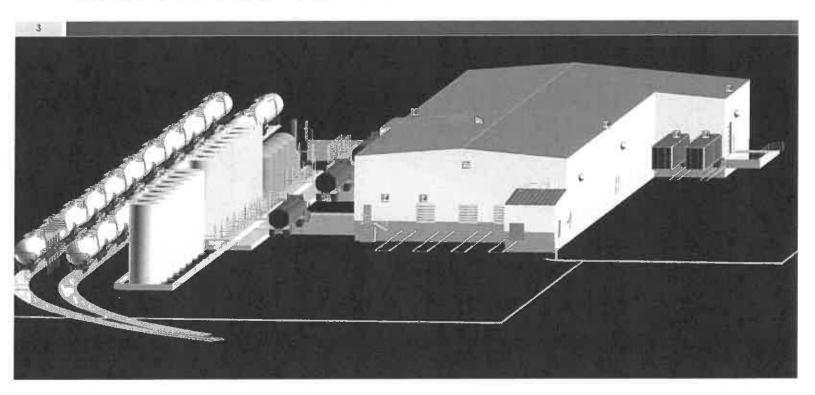


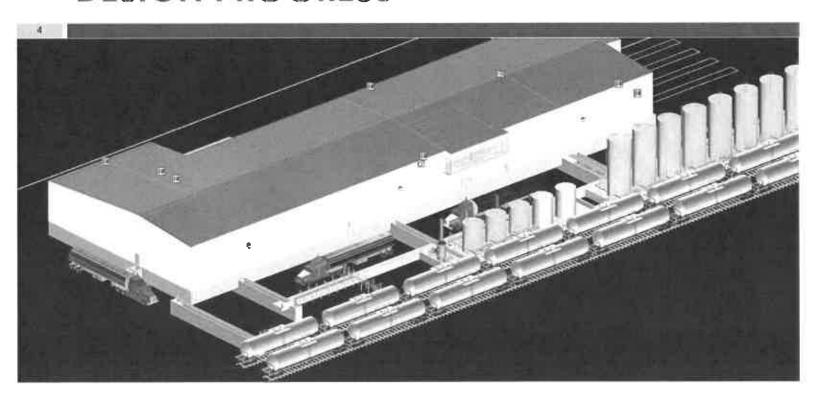
GURR BDT (Bulk Distribution Terminal)
Upton MA

April 21, 2020

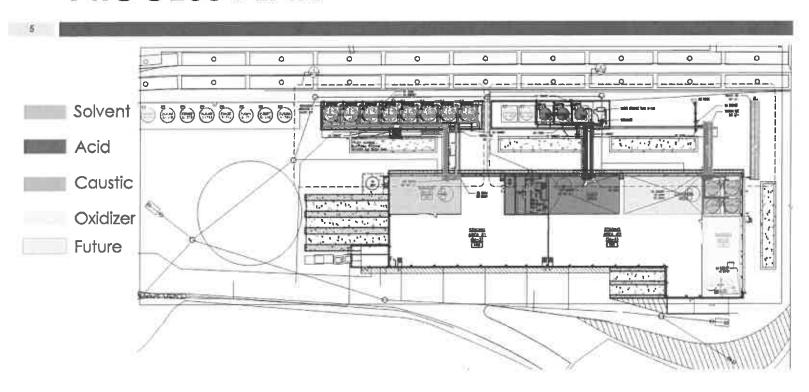
### **PROJECT OVERVIEW**



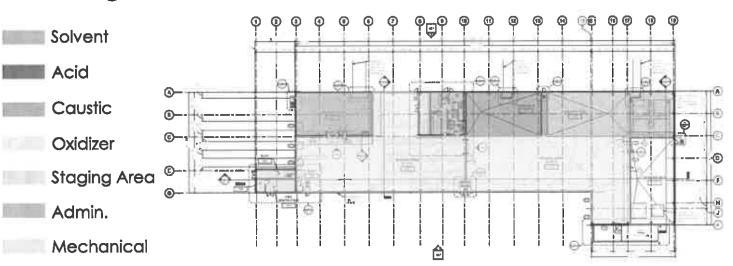


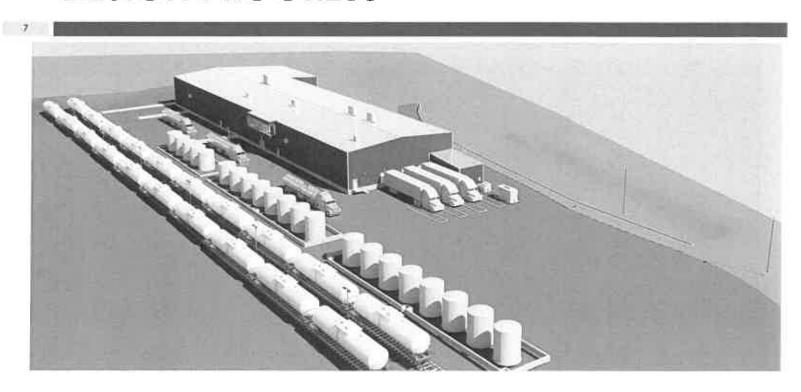


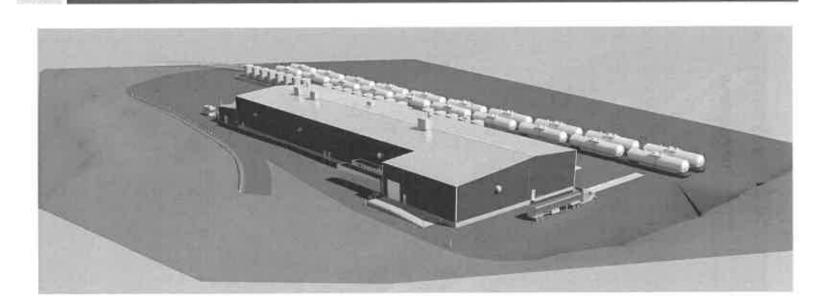
### PROCESS PLAN

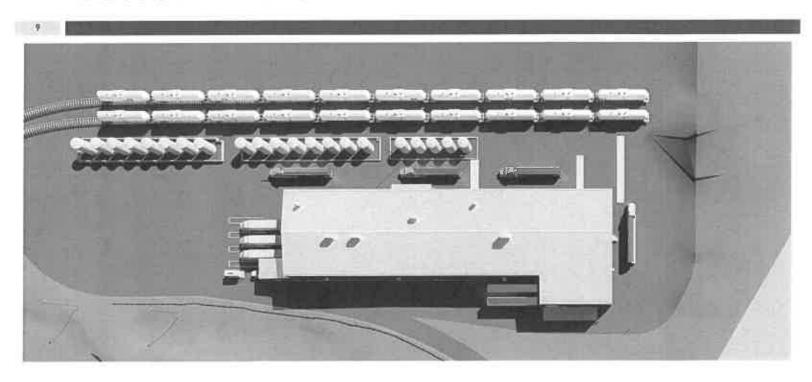


### Program Plan









# DESIGN PROGRESS (SOLVENTS)

